ABSTRACT

This invention provides a technique of preventing errors from being gradually accumulated on the decoding side, while maintaining high scalability, even when a technique for transformation to subbands as a plurality of frequency components, like discrete wavelet transformation, is used for moving image coding. The image data of one input frame is decomposed into a plurality of subbands having different frequency components by a discrete wavelet transformation unit (101). A lower bitplane coding unit (109) codes, for each bitplane, predetermined lower bits of each coefficient data of a subband LL and the coefficient data of subbands other than the subband LL. The data of the upper bits of the subband LL is stored in a frame memory (105). A motion vector detection unit (107) detects a predicted value and motion vector on the basis of the decoded data of the subband LL in a preceding frame. A subtracter (103) obtains the difference between the detected predicted value and the current frame. A coefficient coding unit (104) codes the obtained difference. A motion vector coding unit (108) codes the motion vector. A multiplexing unit (111) multiplexes the code data obtained by the coding units (104, 108, 109).